

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A zinc-free glass frit ~~comprising~~ consisting essentially of, by weight, from about 50% to about 70% SiO₂, from about 5% to about 20% CaO, from about 3% to about 15% Al₂O₃, ~~up to about 20% BaO~~, provided that the content of BaO does not exceed about 20%, up to about 15% B₂O₃, up to about 10% K₂O, up to about 6% Na₂O, up to about 10% ZrO₂, up to about 5% MgO and up to about 5% PbO.

Claim 2 (currently amended): The zinc-free glass frit according to claim 1 comprising, by weight, from about ~~52.0%~~ 52% to about 64% SiO₂, from about 8% to about 15% CaO, from about 4% to about 11% Al₂O₃, from about 7% to about 15% BaO, up to about 13% B₂O₃, from about 2% to about 8% K₂O, up to about 4% Na₂O, up to about 8% ZrO₂ and up to about 3% MgO.

Claim 3 (original): The zinc-free glass frit according to claim 1 comprising, by weight, from about 53% to about 61% SiO₂, from about 10% to about 12% CaO, from about 5.5% to about 9% Al₂O₃, from about 8% to about 12% BaO, up to about 12% B₂O₃, from about 3.5% to about 6% K₂O, up to about 2% Na₂O, up to about 8% ZrO₂ and up to about 2% MgO.

Claim 4 (currently amended): A glaze composition for forming a glossy protective surface on ceramic architectural tile, the glaze composition comprising a zinc-free glass frit, the zinc-free glass frit comprising, by weight, from about 50% to about 70% SiO₂, from about 5% to about 20% CaO, from about 3% to about 15% Al₂O₃, ~~up to about 20% BaO~~, provided that the content of BaO does not exceed about 20%, up to about 15%

B₂O₃, up to about 10% K₂O, up to about 6% Na₂O, up to about 10% ZrO₂, up to about 5% MgO and up to about 5% PbO.

Claim 5 (original): The glaze composition according to claim 4 wherein the zinc-free glass frit comprises, by weight, from about 52% to about 64% SiO₂, from about 8% to about 15% CaO, from about 4% to about 11% Al₂O₃, from about 7% to about 15% BaO, up to about 13% B₂O₃, from about 2% to about 8% K₂O, up to about 4% Na₂O, up to about 8% ZrO₂ and up to about 3% MgO.

Claim 6 (original): The glaze composition according to claim 4 wherein the zinc-free glass frit comprises, by weight, from about 53% to about 61% SiO₂, from about 10% to about 12% CaO, from about 5.5% to about 9% Al₂O₃, from about 8% to about 12% BaO, up to about 12% B₂O₃, from about 3.5% to about 6% K₂O, up to about 2% Na₂O, up to about 8% ZrO₂ and up to about 2% MgO.

Claim 7 (currently amended): A method of forming a protective glaze surface on an architectural tile comprising:

providing a ceramic body;

applying a glaze composition to the ceramic body, the glaze composition

comprising a zinc-free glass frit ~~comprising~~ consisting essentially of, by weight, from about 50% to about 70% SiO₂, from about 5% to about 20% CaO, from about 3% to about 15% Al₂O₃, ~~up to about 20% BaO~~, provided that the content of BaO does not exceed about 20%, up to about 15%

B₂O₃, up to about 10% K₂O, up to about 6% Na₂O, up to about 10% ZrO₂, up to about 5% MgO and up to about 5% PbO; and

firing the ceramic body to fuse the glaze composition to a surface thereof.

Claim 8 (original): The method according to claim 7 wherein the applied glaze composition and ceramic body are co-fired during a single fast firing cycle at a temperature of from about 1080°C to about 1180°C.

Claim 9 (original): The method according to claim 7 wherein the glaze composition is applied to the ceramic body after the ceramic body has been once-fired, and wherein the applied glaze composition and the once-fired ceramic body are co-fired during a second firing in a double fast firing cycle at a temperature of from about 1000°C to about 1150°C.

Claim 10 (currently amended): The method according to claim 7 wherein the glaze composition and the ceramic body are co-fired in a gres-percellanato single ceramic firing cycle at a temperature of from about 1160°C to about 1250°C.

Claim 11 (currently amended): A method of forming a protective glaze surface on an architectural tile comprising:

providing a ceramic body;

applying a glaze composition to the ceramic body, the glaze composition

comprising a zinc-free glass frit comprising ~~The method according to claim 7 wherein: the zinc-free glass frit comprises BaO;~~

applying an ink composition comprising Cr⁺³ ions is applied to the applied glaze composition prior to firing; and

firing the ceramic body to fuse the glaze composition to a surface thereof[.].

wherein a yellow coloration develops in the protective glaze surface where the ink was applied and fired.

Claim 12 (currently amended): The method according to claim 7 wherein:

the zinc-free glass frit comprises BaO;

~~a conventional an~~ an ink composition for decorating ceramic products is applied to the applied glaze composition prior to firing; and

a coloration develops in the protective glaze surface.